

DELTA VOICE

The voice of those who
live, work and play
in the Delta

Winter 2017

printed on recycled paper 

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the Delta!

A Motley Crew of Muzzles: Super sniffer detection dogs are training for duty in the Delta

Specially-trained dogs are used in many applications, including sniffing out drugs or contraband in oversea shipments, guiding the blind and providing therapy to invalids or the mentally ill. In the Delta, dogs with particular sniffing skills are being cued up to help protect a threatened species during annual levee maintenance.

The giant garter snake inhabits agricultural wetlands and waterways such as irrigation and drainage canals, ponds and streams throughout the Central Valley. Levee maintenance activities such as mowing, excavating, and filling small burrows can impact the snakes, which make their homes in and around levees. Because the giant garter snake is a threatened species under the U. S. Endangered Species and California Endangered Species Acts, activities that can disrupt these snakes are subject to guidelines to minimize adverse impacts. Since the snakes hibernate in borrowed rodent burrows from October to April, and their presence is difficult to detect, needed levee maintenance has to be deferred in areas that may be harboring the reptiles.

Enter the "Harvey Dogs". H. T. Harvey & Associates, a California-based ecological consulting firm, has been training dogs to detect several species

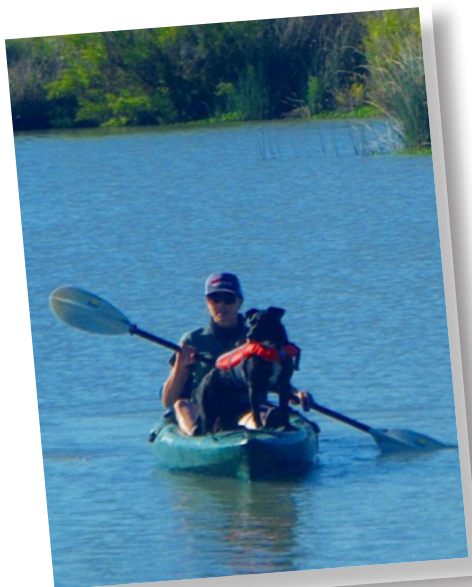
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Grand Island Mansion, built in the 1920's for the heiress of the Weinstock's department store fortune, is now a popular wedding venue.

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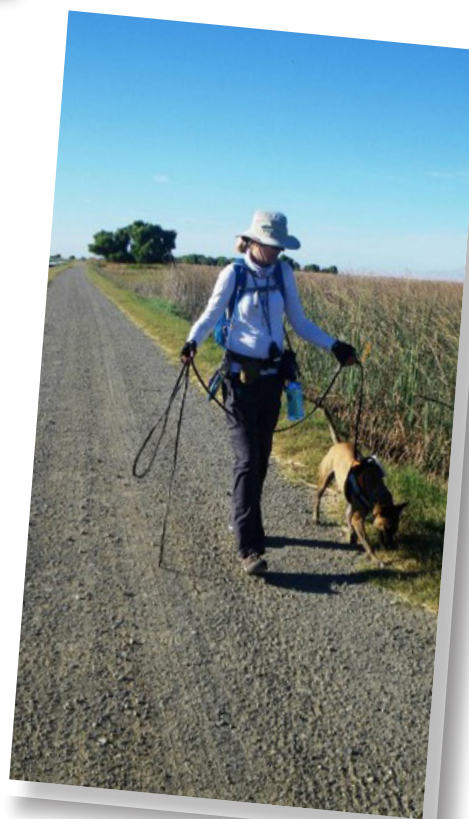
and to give their handlers a cue when the species is present. Using their superb noses, dogs can detect a target species from smelling the live animal or particles such as scat, skin casings, or feathers.



Lithium can detect garter snakes in the WATER!

The Harvey Dog team recently completed a pilot study to determine if scent-detection dogs can be trained to recognize giant garter snake residual odor and distinguish it from that of similar snake species, and the answer was a resounding Yes: scent-detection dogs may be able to survey for snakes not only sheltering in burrows, but also in water! After the study, the Harvey Dogs were used to survey for snakes in partnership with giant garter snake expert (and UC Davis graduate) Eric Hansen. Both atop kayaks in sloughs and on foot on levee roads, the dogs detected the snakes and their findings were corroborated by environmental DNA analysis. As an added bonus, the surveys are noninvasive to the species.

When the dogs are working, they wear special vests and a bell to indicate they are “on-duty.” The vests allow the handlers better visual contact with the dogs and are also handy to hold the dogs’ GPS units which record their tracks while they work. The bells on the vests serve two purposes; they help to alert wildlife to the presence of the dogs and allow the handlers to have audio contact with their dogs while working over long distances. The ultimate goal is to deploy dogs so giant garter snake surveys can be done any time of year, clearing the way for needed levee maintenance. Finding species using scent-detection dogs is truly a team effort, and for future work along levees, the Delta maintenance teams and the Harvey Dogs are aiming to build a winning partnership.



Kaia sniffs a levee for giant garter snakes



Harleigh poses for his professional Super Sniffer resume shot

About The Dogs:

Many of the dogs brought into the Harvey Dogs program are rescues. Others are dogs that did not pass search and rescue standards but are good at searching for and locating specific scents. In addition to Giant garter snakes, Harvey dogs have been trained to detect San Joaquin kit fox, California tiger salamander, blunt-nosed leopard lizard, and Morro Bay kangaroo rat, as well as to detect bird and bat fatalities at wind power sites. On their downtime, the dogs enjoy many activities including hiking, swimming, running, agility training and sometimes just relaxing in the sun.

Meet the Harvey Dogs:

***Bolt:** Border Collie/Australian Cattle Dog Cross

***George:** German Shepherd/Rottweiler Cross

***Gunny:** Belgian Malinois

Harleigh: Labrador retriever

***Kaia:** Belgian Malinois mix (trained on GGS)

***Lithium:** Patterdale Terrier mix (trained on GGS)

***Luna:** Border Collie/Retriever mix

***Vector:** Dutch Shepherd

Zorro: German Shepherd

*indicates rescue dog



The Sacramento Century, Delta Century and the AmGen Tour bring hundreds of cyclists into the Delta

Just a quick hop from the San Francisco Bay Area, the Sacramento region and the Central Valley, the Delta is uniquely situated to provide a variety of recreational experiences to the estimated 12 million people located within a short driving distance. If you're into boating and floating, hiking and biking, catching a meal for the grill or being wine and dined - the Delta has opportunities for you!

An updated Inventory of Recreation Facilities in the Sacramento-San Joaquin Delta is now available on the Delta Protection Commission's website. The last inventory was conducted in 2005 – before the recession impacted dozens of businesses – so a new inventory was very much needed, and has a wealth of new information. The 2015 report updates information on existing recreation facilities and amenities in the Delta, corrects contact information, and adds new businesses that began operations after 2005. This data will assist the Commission to coordinate efforts to improve recreation and tourism in the Delta and contribute to its economic sustainability, and will provide other State and local

Personal watercraft are exploding in popularity – here, a tour group explores Big Break Regional Shoreline

agencies with accurate, reliable information to inform their Delta research and programs. The data will also be used as a recreation resource on the upcoming Delta tourism website, becoming the basis for maps, directories and other assistance for Delta visitors to find recreation providers and facilities.

The Inventory aggregates facilities by County and facility type. Updated facilities include public and private facilities such as: marinas, boat launch facilities, pump-outs, bait shops and fishing supplies, dry storage, fishing and hunting access sites, camping and RV facilities, windsurfing access sites, picnic and playground areas, trails and pathways, and wildlife areas.

The 2015 Inventory also updates and expands the list of Delta historical sites and museums, and recognizes the emergence of Delta agritourism by listing wineries, u-picks and farm stand venues.



Counting on Fun

An Inventory for Delta Recreation



The Delta near Rio Vista is considered a world-class windsurfing destination

Non-motorized water craft access, boat rentals, lodging, and marine repair services are also included in the updated Inventory, reflecting increased interest in these activities.

The Inventory also includes recommendations for recreation and tourism improvements including:

- Promotion of Delta recreation and tourism through social media and signage
- Research and study of visitor trends and the added economic impact of cultural tourism, agricultural tourism and non-motorized boating in the Delta
- Planning for the Sacramento-San Joaquin National Heritage Area and the Great California Delta Trail



Butternut Squash has a hard shell with tender flesh



Spaghetti Squash shreds to a pasta-like consistency



Use chunks of kabocha squash in soups and stews

Winter Squash in the Delta

Colorful and nutritious, these squash are the stars of the season

“Winter Squash” is a collective term for several members of the squash family that are harvested only when fully mature in the late fall and, due to their hard exteriors, can be stored for several months in cool weather and eaten throughout the winter. This group includes acorn, butternut, kabocha and spaghetti squash, just to name a few.

Until recently, pumpkins and acorn squash were the big stars of the winter squash constellation, but that has been steadily changing. Butternut squash, which wasn’t commonly eaten at all until the 20th century, came into widespread popularity with the advent of the Food Network and the accompanying Farm-to-Fork focus. Since colorful winter vegetables got noticed by the Farm-to-Fork movement’s emphasis on seasonal food, it suddenly seemed like butternut squash was everywhere. Butternut squash soup, ravioli, muffins, you name it – all became the rage with chefs and home cooks. Spaghetti squash, whose flesh when cooked falls apart in stringy ribbons, is also rapidly gaining popularity as low-carb and gluten-free dieters incorporate the noodle-like qualities of the nutritious squash into their menus as a healthier substitute for pasta and potatoes.

Art Perry, of George Perry and Sons, a multi-generational farming operation specializing in melons and squashes, farms roughly 120 acres of winter squash in the Delta. His father, George Perry (originally Pereira - his grandfather was an immigrant from the Portuguese Azores, sharing in the rich immigration story of so many Delta farming families) just celebrated his 98th birthday. The Perrys have seen the winter squash market expand and change over the years - Art estimates that “in the old days, if you sold a thousand cartons of acorn squash a week, you might sell 500 of butternut and only about 200 spaghetti squash.” Now butternut leads the pack, with spaghetti steadily increasing and acorn squash falling behind. Perry and Sons does the majority of their

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Squash Map courtesy of Fooducate.com



WINTER SQUASH NUTRITION FACTS

All of the winter squash varieties have NO fat (but remember, the butter you will put on it has a ton), and are low-calorie and a very good source of fiber. Notice the Vitamin A and Vitamin C content (which are percentages of Daily Recommended Amount). Winter squash are also a source of iron, a little protein and beta-carotene. Usually, the darker the skin, the higher the beta-carotene content will be.

One cup of winter squash – cubed and raw – offers

82 calories
0 fat
8 mg sodium
22 g carbohydrate (4 g sugar)
2 g protein
457% Vitamin A
52% Vitamin C
8% Calcium
7% iron

For diabetics, glycemic load is a highly recommended tool for managing blood sugar. The lower the better – under 10 is considered good and over 20 considered high – the Glycemic Load of winter squash is 8.

Source: nutritiondata.com

Continued from page 4

business in watermelons and pumpkins, but still grows a wide range of winter squash in small quantities for the specialty market. Art has nothing but praise for the famous Delta soils: “The Delta soil, that partial peat, partial loam - we’ve got a ranch out by Holt – right off Highway 4 – we have the most incredible butternut squash crop off that ranch. The quality is out of this world.”

Go buy yourself some Delta winter squash and make the following soup – from experience we can tell you it works equally well with butternut, acorn, kabocha and kuri – and see if you don’t agree with Art Perry: Delta winter squash are out of this world!

Butternut Squash Soup

Ingredients

4 small butternut squash
6 T. butter
2 T. brown sugar
2 quarts chicken stock
6-8 leeks, cleaned and sliced
Salt, pepper and nutmeg
Dried sage leaves or toasted fresh sage

Crème Fraiche:

½ cup sour cream, ½ cup milk.
Blend thoroughly and leave on the counter overnight sugar until thickened.

Directions - Heat your oven to 350 F. Cut squash in half and scoop out seeds*. Place cut side up in a roasting pan, drizzle with 4 T. of the butter (melted), sprinkle with brown sugar, and pour 2 cups of chicken stock into pan. Cover the pan tightly with foil and bake for 2 hours. Remove pan, uncover and allow squash to cool.

After cooling, scoop squash out of shells into a soup pot with remaining 6 cups of chicken stock. Strain the liquid in the roasting pan and add to soup. Sauté leeks in remaining butter until limp and translucent, add salt, pepper and nutmeg to taste, and add to soup. Simmer for 10 minutes and puree with a stick blender. Serve hot with a swirl of crème fraiche and a crumble of dried or toasted sage for garnish.

*Squash seeds can be cleaned of their fibrous tissue and soaked overnight in salted water, then spread on a cookie sheet and roasted in the oven until lightly browned for a delicious snack!



Recipe courtesy of Lauretta Bonfiglio

The Delta Cities That Moved the Earth

Or, how Stockton changed the world

The proverb “Necessity is the mother of invention” was never truer than in the early days of Delta agriculture and reclamation. The Delta is well known for its rich peat soils, but this same soil made plowing and planting extremely difficult. Horses and mechanical equipment often sank and became stuck. Peat soil was also a poor material for building the levees that were supposed to protect newly reclaimed farmland and communities. “Tule shoes”, which functioned like snowshoes for horses, were one of the first inventions to deal with peat soils. While tule shoes didn’t quite catch on, subsequent inventions transformed agriculture and earthmoving around the world and made the Delta – Rio Vista and Stockton in particular – the epicenter of agricultural and earthmoving technology.



Benjamin Holt

The most famous of these inventions was developed by the Holt Manufacturing Company, located at the corner of Church and Aurora Streets in Stockton. Benjamin Holt followed his brothers to California from New Hampshire in 1883 and established himself in manufacturing

wooden wagon wheels, combine harvesters, and steam traction engines. In 1904, he first demonstrated a steam-powered machine that moved on self-laying tracks, which were able to move better on the soft Delta soils. The “Caterpillar” tractor soon became a machine that was used not just in agriculture, but for construction and warfare as well, and inspired the design of modern tanks.

Holt’s tractors served as the foundation of Robert G. LeTourneau’s work as a mechanic, contractor, and manufacturer. LeTourneau opened one of the first automobile repair shops in Stockton and eventually started a contracting and manufacturing company there that pioneered earthmoving technology. He was single-handedly responsible for 299 patents, including the mechanized bulldozer,

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Robert G. LeTourneau



A Holt tractor pulling a LeTourneau scraper, date unknown

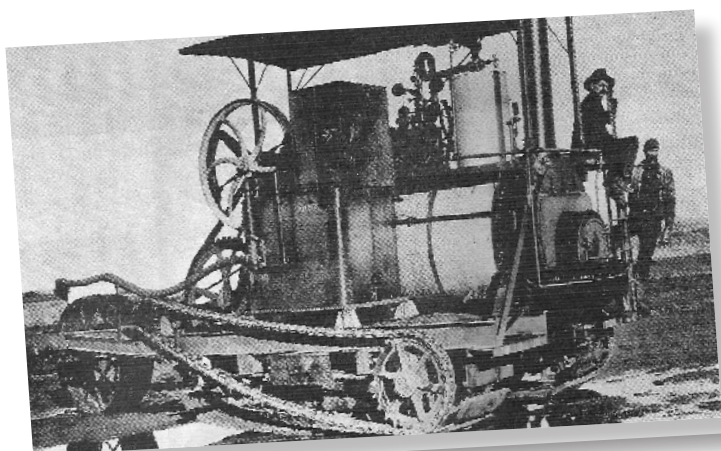
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electric wheel drive, scrapers, dredges, portable cranes, rollers, dump wagons, bridge spans, logging equipment, and the offshore oil platform. His factories across the United States supplied 70% of the heavy earth-moving equipment used by the Allied forces during World War II.

Five years after Benjamin Holt's death in 1920, the Caterpillar Tractor Company moved to Peoria, Illinois to be closer to sources of steel. Eventually, Caterpillar convinced LeTourneau's company to

follow them to Peoria. The Delta town of Holt – site of the first demonstration of the Caterpillar tractor – and Benjamin Holt Drive and Benjamin Holt College Preparatory Academy in Stockton serve as reminders of Holt's significant contributions to the Delta. Unlike Holt, there is very little to mark LeTourneau's time in Stockton - unless you count every plowed field and levee that you see.

You can learn more about the Holt and LeTourneau inventions and legacy at the Haggin Museum in Stockton and San Joaquin County Historical Museum in Lodi. The Delta Voice will discuss the importance of Delta dredging, especially the contribution of Rio Vista's Dutra family, in a future issue.



a Holt prototype tractor on Roberts Island in 1905



Artillery tractor in France Vosges Spring 1915



The Benjamin Holt home in Stockton

DELTA EVENTS



JANUARY

Weekends: *Sandhill Crane Tours*, Woodbridge Ecological Reserve.

www.wildlife.ca.gov/regions/3/crane-tour

19th: *Delta Protection Commission Meeting*, West Sacramento. www.delta.ca.gov

28th: *Chinese New Year*. www.lockefoundation.org

FEBRUARY

Weekends: *Sandhill Crane Tours*, Woodbridge Ecological Reserve.

www.wildlife.ca.gov/regions/3/crane-tour

5th - *Sturgeon Derby*,
www.originalsturgeonderby.com

MARCH

4th - *Delta Blues Festival Benefit Concert*, Antioch.
www.deltabluesfestival.net/benefit-concert.html

16th - *Delta Protection Commission Meeting*, Rio Vista. www.delta.ca.gov

31st - *April 2nd McCormack Sheepdog Trials*, Rio Vista. siriovista.org/events/upcoming-events/

Sweet Farewell to 2016



Delta Protection Commission
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The Delta Protection Commission was proud to join the Delta Conservancy and the Delta Stewardship Council to support Angels of the Fields, a worthy organization that brings holiday cheer to farm worker families and others in need in the Delta, with donated gifts, clothing and a Holiday Carnival for the children. For more information about AOTF, see <http://www.sacshoc.org/2016?09/10/angels-of-the-fields/> or contact Yolanda Chavez at yolagrad@yahoo.com.